

Technique enables excellent outcomes with dual accommodating IOL

Results with novel implant can lead to high patient satisfaction

Jul 15, 2007

By: Cheryl Guttman

Ophthalmology Times/Special Report

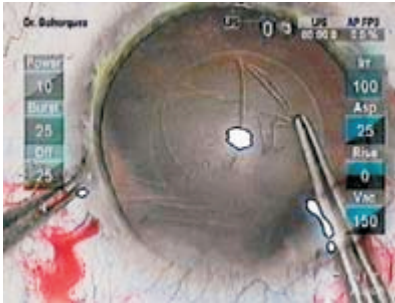


Figure 1 The capsulorhexis must be created with care. The goal should be a round, centered, intact, symmetrical opening about 4.5 to 5 mm in diameter.

San Diego—Delivery of a dual accommodating IOL (Synchrony, Visiogen) is safe and easy to control, and with meticulous surgical technique, this novel implant can provide excellent vision results for high patient satisfaction, according to Victor Bohorquez, MD. Speaking here at the annual meeting of the American Society of Cataract and Refractive Surgery, Dr. Bohorquez provided surgical pearls for optimizing outcomes with implantation of the dual accommodating IOL and demonstrated his technique in a video presentation.

"This implant is the next generation in presbyopia-correcting lenses and the first IOL that completely fills the bag without stretching. It is easy to deliver with a preloaded, disposable injector but has a 3-D configuration that demands a perfect surgical plan," said Dr. Bohorquez, Department of Ophthalmology, ServiOftalmos, Bogota, Colombia.

Dr. Bohorquez and his colleague Ricardo Alarcon, MD, have more than 3 years of experience working with the lens and have implanted it in more than 100 eyes.

To minimize surgically induced astigmatism, Dr. Bohorquez suggested using an astigmatic neutral temporal incision. Then, careful attention must be paid to capsulorhexis creation. For that step, Dr. Bohorquez recommended using a corneal marker, because variation in corneal size and in degree of pupil dilation can affect the surgeon's perception of capsulorhexis size.

"The goal is to create a round, intact, symmetrical opening about 4.5 to 5 mm in diameter," he said.

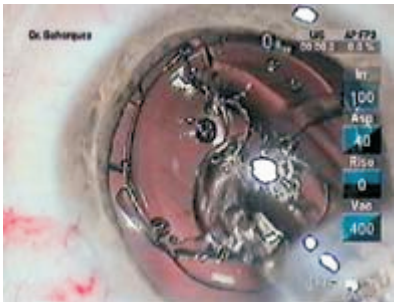


Figure 3 For lens implantation, the bag is filled with a cohesive viscoelastic because it can be removed easily and completely at the end of the case. The incision size is increased to between 3.6 and 3.8 mm. Strict steps must be followed with injector use. The IOL should not be released in the anterior chamber. The anterior optic should be released after the posterior haptics are open, with the injector tip elevated slightly. That way, the risk of the IOL flipping over can be avoided.

Once nucleus removal is complete, thorough cortical clean-up is important to maintain capsular flexibility. When finished, the capsule should appear crystal clear.

"Polishing or vacuuming of the underside of the anterior lens capsule is recommended to prevent anterior capsule opacification," Dr. Bohorquez said. "For that, I recommend bimanual irrigation and aspiration (I/A) using high flow and high vacuum."

For lens implantation, he said, he prefers using a cohesive viscoelastic to fill the bag, because it can be removed easily and completely at the end of the case. The incision size is increased to between 3.6 and 3.8 mm, then the tip of the injector is placed at the capsulorhexis edge.

"Once delivered, the lens unfolds

gently beginning with the posterior side, and perfect centration is always achieved," Dr. Bohorquez said.

For thorough viscoelastic removal, he advised using bimanual I/A to access the space first between the two optics and then behind the posterior optic.

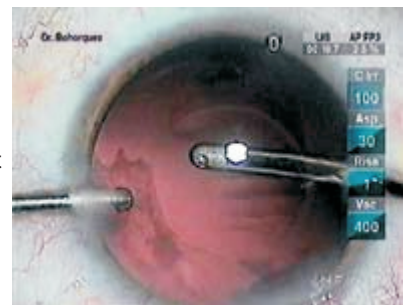


Figure 2 Thorough cortical clean-up is critical to maintaining capsular flexibility. Polishing or vacuuming the underside of the anterior lens capsule will help prevent anterior capsule opacification and fibrosis. Bimanual irrigation and aspiration using high flow and high vacuum is recommended.

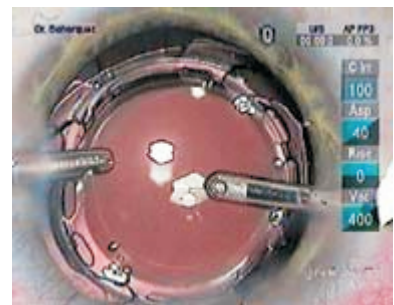


Figure 4 Viscoelastic removal is achieved best using bimanual irrigation/aspiration. Access the space between the optics and go underneath the posterior optic to remove all viscoelastic completely. Complete centration is always achieved. (Photos courtesy of Ricardo Alarcon, MD, and Victor Bohorquez, MD)